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Attorney's Docket No.: 10559-561001 / P12581

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. **(Currently Amended)** A method comprising:

estimating, on the basis of a constellation error in a received OFDM signal, an extent of an I/Q imbalance error, caused by direct IQ conversion of said received OFDM signal; and

on the basis of said extent, estimating an equalizing transformation that reduces said error, wherein estimating the equalizing transformation comprises evaluating an equalizer matrix.

2. **(Previously Presented)** The method of claim **1**, further comprising applying said equalizing transformation to said received signal.

3. **(Previously Presented)** The method of claim **1**, wherein estimating an extent of an I/Q imbalance error comprises estimating a transmitted symbol corresponding to said received OFDM signal.

4. **(Canceled)**

5. (Previously Presented) The method of claim **1**, wherein estimating a transformation comprises:

evaluating a first transformation on the basis of a first portion of a spectrum of said OFDM signal;

evaluating a second transformation on the basis of a second portion of said spectrum; and

combining said first and second transformations to obtain said equalizing transformation.

6. (Previously Presented) The method of claim **5**, further comprising selecting said second portion of said spectrum to include image frequency components of said spectrum.

7. (Previously Presented) The method of claim **6**, wherein selecting said second portion to include image frequency components comprises selecting said second portion to include negative frequency components of said spectrum.

8. (Previously Presented) The method of claim **1**, wherein estimating an equalizing transformation comprises estimating a frequency dependent transformation.

9. (Currently Amended) A receiver comprising:

an I/Q imbalance estimator for estimating, on the basis of a constellation error of a received OFDM signal, an I/Q imbalance error, caused by direct conversion of said received signal; [[and]]

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an adaptive filter system in communication with said I/Q imbalance estimator for generating an equalizing transformation for reducing said I/Q imbalance error; and

a weight-update block in communication with said adaptive filter system and said I/Q imbalance estimator, said weight-update block being configured to update weighting coefficients of said adaptive filter system on the basis of an error signal provided by said I/Q imbalance estimator.

10. **(Previously Presented)** The receiver of claim **9**, further comprising a mixer in communication with said adaptive filter system for applying said equalizing transformation to said received signal.

11. **(Previously Presented)** The receiver of claim **9**, wherein said adaptive filter system comprises a first adaptive filter for generating a first transformation on the basis of a first portion of a spectrum of said received OFDM signal and a second adaptive filter for generating a transformation on the basis of a second portion of said spectrum.

12. **(Previously Presented)** The receiver of claim **11**, wherein said second adaptive filter is configured to receive a second portion that includes image frequency components of said spectrum.

13. **(Previously Presented)** The receiver of claim **12**, wherein said second adaptive filter is configured to receive a second portion that includes negative frequency components of said spectrum.

14. (Canceled)

15. (Currently Amended) An adaptive filter system comprising

a first adaptive filter for generating a first transformation on the basis of a first portion of

a received OFDM signal spectrum; [[and]]

a second adaptive filter for generating a second transformation on the basis of a second

portion of said spectrum; and

a weight-update block in communication with each of said first and second adaptive

filters, said weight-update block being configured to determine weighting coefficients for said

first and second adaptive filters on the basis of an error signal.

16. (Previously Presented) The adaptive filter system of claim **15**, wherein said second

adaptive filter is configured to receive a second portion of said spectrum that includes image

frequency components of said spectrum.

17. (Previously Presented) The adaptive filter system of claim **14**, further comprising a

weight-update block in communication with each of said first and second adaptive filters, said

weight-update block being configured to determine weighting coefficients for said first and

second adaptive filters on the basis of an error signal.

18. (Currently Amended) A transmitter comprising:

an I/Q imbalance estimator for estimating, on the basis of a constellation error of an

OFDM signal, an I/Q imbalance error, caused by direct conversion of said signal; [[and]]

an adaptive filter system in communication with said I/Q imbalance estimator for

generating an equalizing transformation for reducing said I/Q imbalance error; and

a weight-update block in communication with each of said first and second adaptive

filters, said weight-update block being configured to determine weighting coefficients for said

first and second adaptive filters on the basis of an error signal.

19. (Previously Presented) The transmitter of claim 18, wherein said adaptive filter

system comprises a first adaptive filter for generating a first transformation on the basis of a first

portion of a spectrum of said OFDM signal and a second adaptive filter for generating a

transformation on the basis of a second portion of said spectrum.

20. (Previously Presented) The transmitter of claim 19, wherein said second adaptive

filter is configured to receive a second portion that includes image frequency components of said

spectrum.